AVC2
AUTOMATIC VOLUME CONTROL

In response to noise level regulations and demands from the trade for a level control unit which will work with any audio system, FORMULA SOUND have designed the AVC2.

The AVC2 performs as an intelligent volume control and in operation is very simple. If the average operating level is kept below the internally set threshold, the AVC2 has no effect. If the average programme level exceeds the threshold the unit will reduce its output level. The level is reduced in discreet steps indicated by the l.e.d. bar graph meter on the front panel of the unit. The action of the AVC2 is to fade between these steps and is almost undetectable in use. The more one tries to increase the volume, the more the AVC2 will decrease it so that the system will barely change in perceived level. If driven to maximum attenuation, the output level will be reduced by more than the increase in input level. The mixer or pre amp feeding the AVC2 will probably be clipping, but the system will actually be at a lower than normal level. A clip indicator is provided to show when the input stage of the AVC2 is being over driven. Reducing the input level will gently release the attenuation provided by the AVC2.

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The advantages which the AVC2 offers over other types of limiter are:

1. There is no reduction in the dynamic range of the system under normal operating conditions, therefore, the music remains punchy without the restricted sound of conventional compressor/limiters. Compressors/limiters are a recording studio tool designed to restrict the dynamic range of a music signal, usually to make it easier to control and mix, etc., vocals being a prime example. They usually have an array of controls to set attack and release times, threshold and compression ratios, all very necessary in the recording studio to cope with the changing demands of different sessions. When set-up correctly they can prevent system damage from over driving but will always restrict dynamics and not sound particularly musical.

So why use them in music systems?

The answer is that until now installers had little option. There was virtually nothing else available to do the job other than units which shut the system down or off, if a predetermined level was exceeded. The AVC2 changes this.

2. The AVC2 has no external controls for the operator to worry about which also means that tampering is minimised. A bar graph meter informs the operator how much level the unit is holding.
3. An anti-tamper relay is fitted which can be connected to an external switch to improve system security.
4. The unit has provision to connect to an external time switch (not supplied) to switch between two output levels.

AVC2 | TECHNICAL SPECIFICATION

Frequency Response:	20Hz - 30Hz ± 0.5dB.		
Distortion:	O/P level	Attenuation	
(THD & noise) freq 1kHz	0dBu	0dB	<0.01%
	0dBu	12dB	<0.015%
	0dBu	30dBu	<0.05%
Noise 20Hz - 20kHz:	Equiv. input noise <-90dBU.		
Inputs:	Electronically balanced, connect negative to screen for unbalanced use.		
	Input Impedance:	Balanced	20K ohms
		Unbalanced	10K ohms
	Maximum Input Level:	+22dBu	
	Clip Indicator:	Indicates @ +20dBu	
Outputs:	Electronically balanced, connect negative to screen for unbalanced use.		
	Source Impedance:	100 ohms	
	Min. Load Impedance:	600 ohms	
Operating Threshold Range:	High Range:	Average level adjustable +5dBu -2dBu	
	Low Range:	Average level adjustable -8dBu -14dBu	
	N.B. If a signal generator is used as the source for making adjustments to the operating threshold, the threshold will be approx. 6dB lower than using a music source due to the averaging measurement which the unit uses for control. For operation outside the above ranges contact Formula Sound Ltd.		
Attenuator Range:	-3dB -6dB -9dB -12dB -15dB -18dB -24dB -30dB.		
Control Chain:	A control chain with a flat frequency response Linear, "A" weighted, or a combination of both may be selected to control the attenuators. (An aux input to control the unit can be offered as an option, contact Formula Sound).		
Power:	220 - 240V AC (110V to order). Mains Fuse 250mA slow blow. I.E.C. Mains connector.		
Finish:	Front and Rear panels - Black anodised aluminium with etched silver notation which will not rub off in use. Case - black plastic-coated steel.		
Dimensions:	19" rack mounting. 1RU. Width 482mm (19") Depth 200mm (7.9") Height 44mm (1.75")		

Formula Sound reserve the right to alter specifications at any time without notice.

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